

**Listing of Claims:**

Claim 9. (Previously Presented) A method to manufacture a component or a semi-finished part for a gas turbine, in particular for an aircraft engine, preferably by casting, wherein a smelting crucible that is manufactured of boron nitride is used.

Claim 10. (Previously Presented) The method according to Claim 9, wherein the component or semi-finished part is subsequently subjected to an inspection for an undesired inclusion.

Claim 11. (Previously Presented) The method according to Claim 10, wherein the component or semi-finished part is examined for the undesired inclusion with an x-ray test.

Claim 12. (Previously Presented) The method according to Claim 10, wherein the component or semi-finished part is examined for the undesired inclusion with a neutron radiography test.

Claim 13. (Previously Presented) The method according to Claim 10, wherein after the inspection the component or semi-finished part is subjected to a further processing, for example a coating process.

Claim 14. (Previously Presented) The method according to Claim 9, wherein the component or semi-finished part is manufactured of a super alloy.

Claim 15. (Previously Presented) The method according to Claim 9, wherein the component or semi-finished part is embodied as an engine disk, which is manufactured of a super alloy, in particular of Udimet 720 LI, by casting plus forging.

Claim 16. (Previously Presented) A method to manufacture a component or a semi-finished part for a gas turbine, in particular for an aircraft engine, of a super alloy by casting, wherein:

a) a smelting crucible that is manufactured of boron nitride is used in casting; and

b) subsequent to casting, the component or semi-finished part is subjected to an inspection for an undesired boron nitride inclusion.

Claim 17. (Previously Presented) A method to manufacture a component of a gas turbine engine, comprising the step of casting the component in a smelting crucible that is made of boron nitride.

Claim 18. (Previously Presented) The method according to Claim 17, further comprising the step of inspecting the component for a boron nitride inclusion.

Claim 19. (Previously Presented) The method according to Claim 18, wherein the step of inspecting includes testing with an x-ray test.

Claim 20. (Previously Presented) The method according to Claim 18, wherein the step of inspecting includes testing with a neutron radiography test.

Claim 21. (Previously Presented) The method according to Claim 18, further comprising the step of coating the component after the steps of casting the component and inspecting the component.

Claim 22. (Previously Presented) The method according to Claim 17, wherein the component is manufactured of a super alloy.

Claim 23. (Previously Presented) The method according to Claim 22, wherein the component is an engine disk.

Claim 24. (Previously Presented) The method according to Claim 22, wherein the super alloy is Udimet 720 LI.

Claim 25. (Previously Presented) The method according to Claim 17, wherein the step of casting includes the step of forging.